



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,033	02/23/2004	Kevin C. Black	BIOFO-03.US 5338-03-10	3789
55678	7590	02/15/2006	EXAMINER	
MILTON, GELLER, LLP 700 - 225 METCALFE STREET OTTAWA, ON K2P-1P9 CANADA			ALIMENTI, SUSAN C	
			ART UNIT	PAPER NUMBER
			3644	

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/783,033	Applicant(s) BLACK ET AL	
	Examiner Susan C. Alimenti	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,23-31,34 and 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21,23-31,34 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 28, 29, and 32 is withdrawn in view of the newly discovered reference(s) to Lopez et al. (USPN 5,971,950). Rejections based on the newly cited references follow.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 38 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 38 recites the present device "in combination with said tree," however, a tree is not one of the above listed statutorily permitted classes.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3644

5. Claims 21, 23, 24, 31, 33, and 34 rejected under 35 U.S.C. 103(a) as being unpatentable over Skinkle et al. (US PG PUB 2001/0056259 A1) and further in view of Lopez et al. (USPN 5,971,950).

Skinkle et al. (Skinkle hereafter) discloses the claimed invention comprising a canister 20, 50 having an interior cavity and an outlet port 30, a partition 40, sealably 45 disposed in the canister 20, 50 and dividing said canister in a first chamber 80 and a second chamber 90. A rubber valve/closure 35 is disposed at the outlet port 30 and permits the release of fluid from the first chamber 80. A spring 60 is disposed in the second chamber 90, and oriented to apply a force on the partition 40 in a direction towards valve/closure 35. A nozzle 70 having a bore therethrough is shaped on a first end 305 for communication with the outlet port 30 and a second end ready for connection with the object being injected. Upon connection of the nozzle 70 with the outlet port 30, a dispensing flow path is opened up through the valve closure, permitting fluid to pass from the first chamber 80 through said outlet port. The valve/closure 35 is a self-sealing plug due to the “duck-bill” design 305, and the nozzle 70 comprises a needle 75 positioned for insertion through the plug, thus permitting flow of fluid therethrough.

Further with regard to claim 21 and the amended limitations directed toward the needle tip not extending beyond the end of the nozzle, Skinkle fails to disclose the needle positioned in such a manner. It is noted, however, that providing a needle sheath, or a recessed needle is well known in the injection device art in order to provide a safety for the user and further to protect the needle from breaking. Lopez et al. (Lopez) discloses such a device in the same field of invention, i.e. injection devices, and controlled fluid delivery, utilizing such a safety mechanism. Lopez’s device, as herein described in Figures 4 and 4a, comprises a nozzle 50 ready for mated

Art Unit: 3644

engagement with output port 16, and needle 44 which fits into valve/closure 36 to allow fluid flow therethrough. Nozzle 50 includes portion 56 which extends past the tip of needle 44, to prevent accidental injury from said needle and further provides protection to the needle itself. It would have been obvious to one having ordinary skill in the art at the time the invention was made to extend Skinkle's end 305 of the nozzle to at least match the length of needle 75 in order to prevent injury from, and damage to said needle.

Regarding claim 23, there is considered to inherently be a compressed gas in second chamber 90, since as liquid is filled into first chamber 80, the volume of second chamber 90 decreases and therefore the spring and air contained therein becomes depressed as well.

Regarding claim 24, spring 60 is a mechanical spring.

Regarding claim 31, outlet port 30 has a tapered seat and is read broadly to receive plug 35, which also has a tapered portion that is symmetrical, and therefore complimentary, to the taper on outlet port 30.

Regarding claim 33, when canister portion 50 is removed from portion 20, the size and shape of the top and bottom are complimentary, thus permitting consecutive canisters 20 to be fitted into each other for stacking.

Regarding claim 34, Skinkle's valve closure 35 is made of rubber (Skinkle, [0053]), which is considered to comprise styrene butadiene.

Finally regarding Claim 38, Skinkle's device is considered to be capable of injecting a fluid into the bark of a tree.

Art Unit: 3644

6. Claims are 25-29, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skinkle as applied to claims 21, and 24 above, and further in view of Rake et al. (USPN 6,251,098).

Regarding claim 25, Skinkle disclose the claimed invention except Skinkle does not utilize a plurality of nested springs. Rake et al. (Rake) discloses a similar pressure-type dispenser and teaches the use of two nested springs to further facilitate automatic injection of a fluid. Multiple springs provide increased force and higher fluid flow rates. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a plurality of springs with Skinkle's injector in order to provide a greater force to the partition, thus varying the fluid flow rates.

Regarding claims 26 and 27, Skinkle, as modified, discloses the claimed invention except he does not positively state the extension or depression of spring 60. It would have been obvious to one having ordinary skill in the art at the time the invention was made to set the maximum extension of the spring to 30-70% of the maximum potential expansion, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 28, Rake's nested spring are each of unique diameters, with each successive spring proceeding inwardly being smaller in diameter than the previous, external spring.

Regarding claim 29, barrier 184 prevents interference between successive nested springs during expansion.

Art Unit: 3644

Finally regarding Claim 38, Skinkle's device is considered to be capable of injecting a fluid into the bark of a tree.

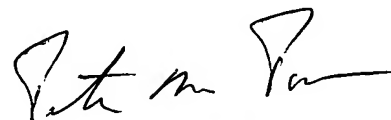
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan C. Alimenti whose telephone number is 571-272-6897. The examiner can normally be reached on Monday-Friday, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan C. Alimenti



PETER M. POON
SUPERVISORY PATENT EXAMINER

2/6/06